Planned Out-of-Hospital Births in Utah, 2010-2012: A Descriptive Review

Utah Department of Health, Maternal Child Health Bureau

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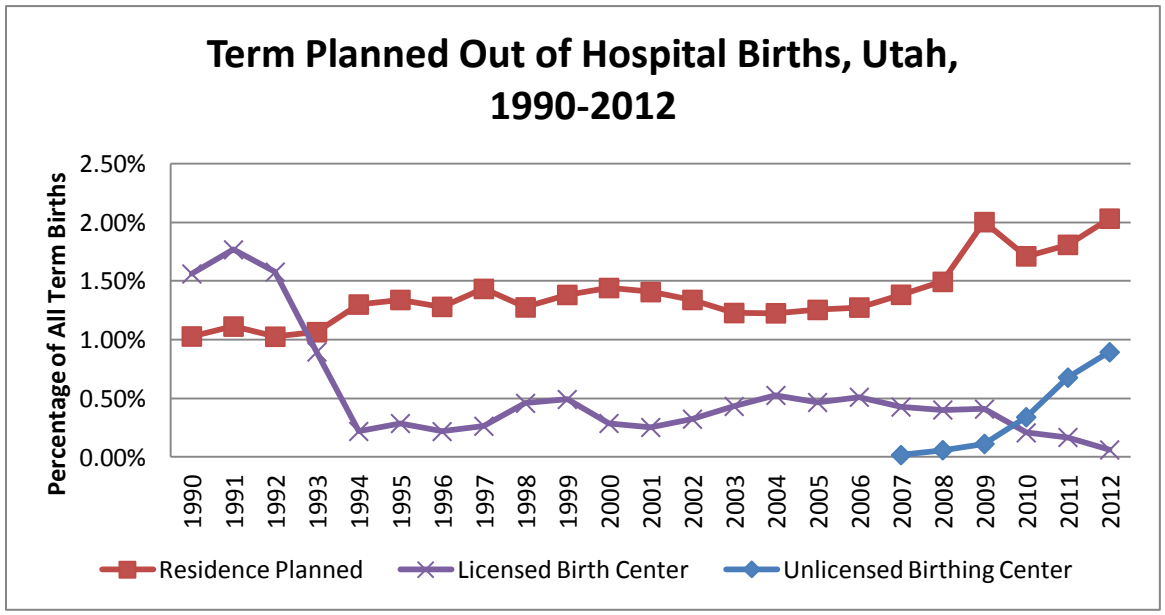
Background:

The U.S. Department of Health and Human Services recently published a data brief indicating that large changes in birthing patterns in the United States have occurred over the past century. In 1900, almost all births occurred outside a hospital, most of which occurred at home. This proportion fell to 44% by 1940 and to 1% by 1969. (1) Planned out-of-hospital (OOH) births are still relatively uncommon in Utah, but the trend is increasing (see Figure 1).

Figure 1. Term planned out of hospital births, Utah, 1990 - 2012



*In 1990 two licensed birthing centers operated in Utah; one closed in 1994, accounting for the large drop in licensed birthing center births at that point. The other closed in 2013, leaving the state without any licensed birthing centers. The first unlicensed birthing center opened in 2007. Unlicensed birthing centers are exempt from the state birthing center regulations because they have only one birthing room. Unlicensed birthing centers have continued to open since then, and today Utah has 18 unlicensed birthing centers, accounting for the steep increase in births in these centers since 2007.

Aims of this review are as follows:

- Examine recent trends and characteristics of planned OOH births among live, term births (≥37 weeks) in Utah, 2010-2012.
- Identify opportunities to improve available data regarding planned OOH in Utah.
- Recommend action items targeting identified maternal and neonatal safety issues.

Methods:

This report uses birth certificate and death certificate data collected by the Utah Office of Vital Records and Statistics (OVRS). Data reported include 2010-2012 births and deaths. This time period was selected because changes to the Utah birth certificate occurred in 2009 that allowed for more detailed reporting on the three levels of midwives practicing in Utah; certified nurse midwives (CNM), licensed direct entry midwives (LDEM), and unlicensed midwives.

This report examines recent trends and characteristics of planned OOH births among live, term births (≥37 weeks) without lethal anomalies in Utah. The data in this report do not include unplanned OOH births because they are different in nature in that they are emergent and often higher risk. One limitation of these data is that we cannot identify births in women with intent to deliver at home who ultimately deliver in the hospital, which would be included in the hospital delivery data. Data were analyzed using SAS version 9.2.

In order to clarify the various types of out-of-hospital birth settings and birth attendants for the data presented in the report, definitions are included in the appendix for terms used. Utah statutes pertaining to maternity care providers and facilities can also be found in the **APPENDIX.**

Descriptive statistics:

A total of 139,958 live term infants (≥ 37 weeks) were born in Utah during 2010-2012. The majority of Utah births occurred in hospitals (136,265) and were attended by a MD/DO (123,661). Table 1 provides an overview of where Utah births occurred and their birth attendants for 2010-2012.

Table 1.
Live term non-anomalous births by place of birth and birth attendant, Utah residents, 2010-2012

Birth Attendant	Total	Hospital	Planned Home	Unlicensed Birth Center
State Total	139,958	136,265	2,595	1,098
MD/DO	123,661	123,654	**	5*
Naturopathic Physician	163	156	7*	0
Certified Nurse Midwife	12,421	11,800	167	454
Licensed Direct Entry Midwife	1,116	0	647	469
Other Midwife	1,811	0	1,648	157
Other	304	198	98	8*
Out of State Birth - Unknown Attendant	482			

**Use caution in interpreting, the estimate has a coefficient of variation > 30% and is therefore deemed unreliable by Utah Department of Health data reporting standards. **The estimate has been suppressed because 1) The relative standard error is greater than 50% or can't be determined 2) the observed number of events is very small and not appropriate for publication, or 3) it could be used to calculate the number in a cell that has been suppressed.*

Figure 1. Percentage of live term non-anomalous OOH births by local health district, 2010-2012

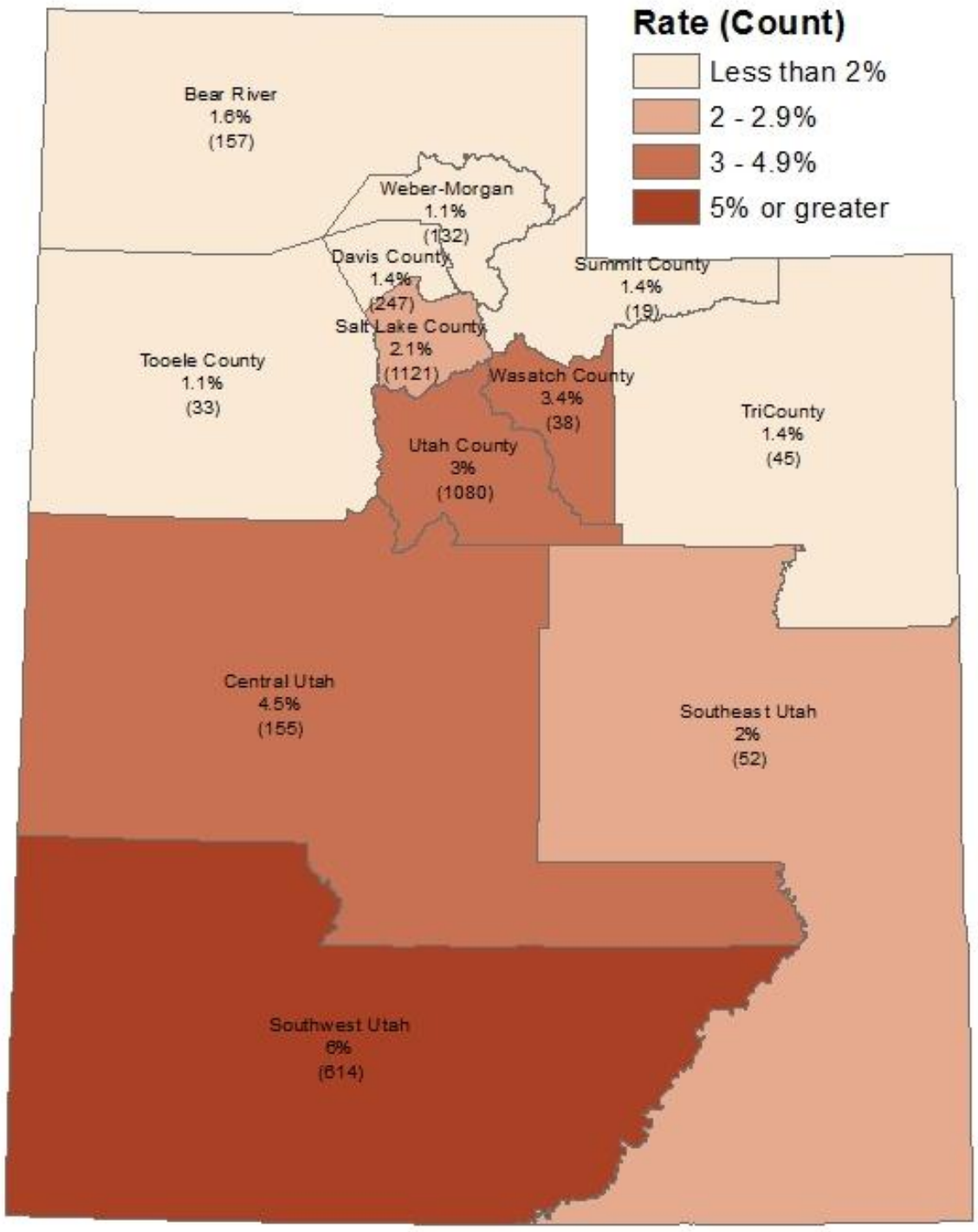
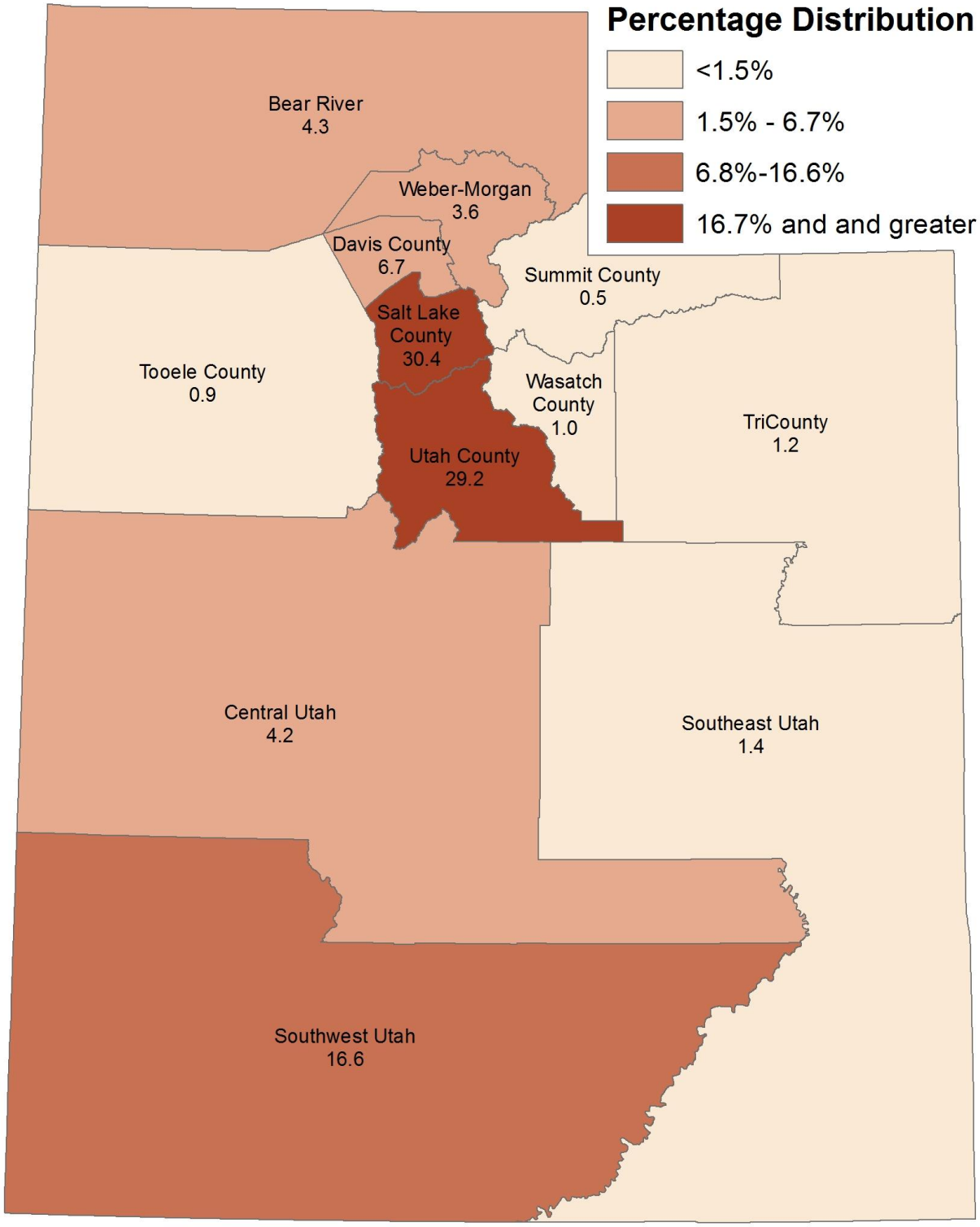


Figure 2. Distribution of live term non-lethal anomalous OOH births by local health district, 2010-2012



The maps depicted on pages 3 and 4 describe where OOH births occurred in Utah during 2010-2012. The first map depicts the rates of OOH births in Utah by mother's local health district of residence. The highest rate of OOH births during these years occurred in the Southwest Utah Public Health Department. The second map depicts the percentage distribution based on the population as a whole and is reflective of where the highest population in the state resides, in the Salt Lake and Utah County health districts.

Women who planned out-of-hospital births (home, birth center) compared to women who planned in-hospital births tended to be older, white and non-Hispanic, married, and of rural residence. Women having births in the out-of-hospital setting also tended to be at a healthier weight prior to pregnancy, have had five or more prior births and to have paid for their deliveries out of pocket. See Table 2 for more detailed information on demographics. It should be noted that while women who chose OOH births had dramatically higher rates of self-pay than those who chose the hospital setting, one cannot assume that they were uninsured at the time of delivery. Because most insurance companies will not pay for OOH births, women who chose this setting must pay out of pocket for these services. This report is based on birth certificate data that capture the payer for the delivery. Data on insurance status at time of delivery are currently not available.

In addition, women who planned OOH births compared to women with in-hospital births were more likely to have no prenatal care (home birth 1.9% vs. hospital 0.3%) or inadequate prenatal care, as defined by the Kotelchuck Index[‡] (home birth 39.1%, birth center 30.5% vs. hospital 14.9%), and were less likely to begin care in the first trimester (home birth 52.9%, birth center 48.5%, vs. hospital 75.3%). Table 2 provides more detail of demographic and health care characteristics of women by their choice of birth place.

Table 2. Maternal characteristics of live term non-anomalous births by place of birth, Utah residents, 2010-2012

Characteristic	Total Births	Hospital		Planned Home		Unlicensed Birth Center	
		No.	%	No.	%	No.	%
Total Term Births	**140,058**	**136,364**	**97.4**	**2,596**	**1.9**	**1,098**	**0.8**
Mother's Age							
<20	7,277	7,183	5.3	86	3.3	8*	0.7
20-24	32,646	31,983	23.5	472	18.2	191	17.4
25-29	48,986	47,675	35.0	869	33.6	442	40.3
30-34	35,934	34,918	25.7	737	28.5	279	25.5
35-39	12,732	12,242	9.0	344	13.3	146	13.3
40+	2,214	2,103	1.6	81	3.1	30	2.7

Table 2 continued on pages 6 and 7

Table 2. Maternal characteristics of live term non-anomalous births by place of birth, Utah residents, 2010-2012 (continued)

Characteristic	Total Births	Hospital		Planned Home		Unlicensed Birth Center	
		No.	%	No.	%	No.	%
Mother's Race							
White	121,693	118,083	86.7	2539	97.8	1,071	97.5
Black	1,542	1,535	1.1	**	**	**	**
American Indian	1,714	1,704	1.3	6*	0.2*	**	**
Asian	2,807	2,787	2.1	13	0.5	7*	0.6
Hawaiian/PI	2,045	2,033	1.5	10*	0.4*	**	**
Other	8,928	8,908	6.5	14	0.5	6*	0.6
Unknown	1,229	1,215	0.9	10*	0.4*	**	**
Hispanic Ethnicity							
No	115,747	112,186	82.4	2,498	96.4	1,063	97.1
Yes	21,143	21,029	15.5	84	3.2	**	**
Unknown	2,902	2,890	2.1	10	0.4	30	2.7
Marital Status							
Married	113,976	110,698	81.3	2,244	86.5	1,034	94.2
Unmarried	25957	25,543	18.8	350	13.5	64	5.8
Mother's Education							
≤8th grade	3,086	3,024	2.2	27	1.04	35	3.2
Some high school	12,970	12,715	9.3	158	6.1	97	8.8
High School Grad	26,042	25,410	18.7	482	18.6	150	13.7
Some college	36,995	35,928	26.4	793	30.6	274	25.0
Associate's	16,446	15,991	11.7	339	13.1	116	10.6
Bachelor's	33,949	32,975	24.2	638	24.6	336	30.6
Master's	5,761	5,595	4.1	106	4.1	60	5.5
Doctoral	1,451	1,403	1.0	26	1.0	22	2.0
Unknown	3,185	3,153	2.3	25	1.0	7	0.6
Source of Payment							
Medicaid	38,465	38,305	28.2	20	0.8	140	12.8
Private Insurance	81,080	80,919	59.6	108	4.2	53	4.9
Self-Pay	8,620	5,345	3.9	2,386	92.0	889	81.3
IHS	35	35	0.03	70	0	0	n/a
CHAMPUS	2,477	2,472	1.8	**	**	**	**
Other Govt	1,272	1,266	0.93	**	**	**	**
CHIP	104	104	0.08	0	0	0	n/a
Other	1,149	1,080	0.8	65	2.5	**	**
Unknown	6,298	6,288	4.6	9	0.35	**	**
Initiation of Care							
1st Trimester	104,409	102,569	75.3	1,259	48.6	581	52.9
2nd Trimester	24,545	23,271	17.1	943	36.3	331	30.1
3rd Trimester	4,886	4,493	3.3	263	10.1	130	11.8
No Care	426	376	0.3	50	1.9	0	n/a

Table 2. Maternal characteristics of live term non-anomalous births by place of birth, Utah residents, 2010-2012 (continued)

Characteristic	Total Births	Hospital		Planned Home		Unlicensed Birth Center	
		No.	%	No.	%	No.	%
Prenatal Care‡							
Adequate	112,774	110,522	85.1	1,529	60.9	723	69.5
Inadequate	20,684	19,384	14.9	982	39.1	318	30.5
Pre-Pregnancy Body Mass Index							
Underweight	6,267	6,045	4.6	170	6.6	52	4.8
Normal	75,491	73,090	55.1	1,691	65.5	710	66.0
Overweight	30,850	30,174	22.8	464	18.0	212	19.7
Obese	23,665	23,308	17.6	255	9.9	102	9.5
Smoked in Last Trimester							
Yes	4,393	4,385	3.2	**	**	**	**
No	135,565	131,880	96.8	2,591	99.9	1,094	99.6
Number of Previous Live Births							
No prior births	45,557	44,830	32.9	431	16.6	296	27.0
1-5 prior births	92,161	89,611	65.8	1,860	71.7	690	62.8
6 + prior births	2,084	1,670	1.2	302	11.7	112	10.2
Residence							
Urban	107,907	105,331	75.3	1,798	69.3	778	70.9
Rural	32,051	30,934	22.1	797	30.7	320	29.1

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**The estimate has been suppressed because 1) The relative standard error is greater than 50% or when the relative standard error can't be determined or 2) the observed number of events is very small and not appropriate for publication.

‡Kotelchuck Index: uses two crucial elements obtained from birth certificate data: initiation of prenatal care and the number of prenatal visits began until delivery based on gestational age at delivery.

As expected, women who planned OOH births (home birth, unlicensed birth center) compared to women who planned in-hospital births tended to have lower rates of medical intervention including:

	Home	Unlicensed Birth Center	Hospital
• Epidural/Spinal anesthesia	0%	0%	87%
• Induction of labor	0.7%	0.8%	19.3%
• Augmentation of labor	2.9%	5.1%	31.8%
• Primary cesarean delivery	0%	0%	14.4%

In addition, women who had planned out-of-hospital births compared to women who had in-hospital births tended to have a lower risk profile with the exception of higher rates of PROM >12 hours, precipitous labor (<3 hours) and prolonged labor (>20 hours).

Table 3 provides an overview of characteristics of labor and delivery, method of delivery, and maternal and infant conditions by place of birth.

Table 3. Characteristics of labor and delivery, method of delivery and maternal and infant conditions of live term non-anomalous births by place of birth, Utah residents, 2010-2012

Health Characteristics	Total Births	Hospital		Planned Home		Unlicensed Birth Center	
	No.	No.	%	No.	%	No.	%
Total term births	140,058	136,364	97.4	2,596	1.9	1,098	0.8
Characteristics of Labor and Delivery							
Premature rupture of membranes	688	621	0.5	53	2.0	14	1.3
Precipitous labor	2,577	2,309	1.7	228	8.8	40	3.6
Prolonged labor	1,014	948	0.7	47	1.8	19	1.7
Induction of labor	26,306	26,278	19.3	19	0.7	9	0.8
Augmentation of labor	43,511	43,380	31.8	75	2.9	56	5.1
Epidural/spinal anesthesia	118,578	118,578	87.0	0	n/a	0	n/a
Non-Vertex presentation	798	771	0.6	23	0.9	**	**
Moderate/Heavy meconium staining	7,058	7,004	5.1	48	1.9	6*	0.6*
Fetal intolerance of labor	11,347	11,329	8.3	13	0.5	5*	0.5*
Chorioamnionitis	4,796	4,795	3.5	**	**	0	n/a
Method of Delivery							
Vaginal	108,724	105,083	77.1	2,556	98.5	1,085	98.9
Vaginal birth after Cesarean section	2,138	2,088	1.5	38	1.5	12	1.1
Primary Cesarean section	19,648	19,648	14.4	0	n/a	0	n/a
Repeat Cesarean section	9,370	9,370	6.9	0	n/a	0	n/a
Maternal Conditions							
Multiples	1,824	1,789	1.3	28	1.1	7*	0.6*
Diabetes-Gestational	5,064	5,032	3.7	9*	0.4*	19	1.7
Diabetes-Chronic	876	862	0.6	**	**	10*	0.9*

Table 3. Characteristics of labor and delivery, method of delivery and maternal and infant conditions of live term non-anomalous births by place of birth, Utah residents, 2010-2012 (continued)

Health Characteristics	Total Births	Hospital		Planned Home		Unlicensed Birth Center	
	No.	No.	%	No.	%	No.	%
Maternal Conditions (continued)							
Hypertension-Chronic	1,103	1,098	0.8	**	**	**	**
Hypertension-Gestational	6,140	6,128	4.5	8*	0.3*	**	**
Group B Strep	26,268	25,970	19.1	161	6.2	137	12.5
Maternal transfusion	1,061	1,050	0.8	8*	0.3*	**	**
Perineal laceration	2,266	2,209	1.6	33	1.3	24	2.2
Ruptured uterus	25	24	0.02	0	n/a	**	**
Mat. Adm. to intensive care	90	86	0.06	**	**	0	n/a
Unplanned Operating Room procedure	270	257	0.2	9*	0.3*	**	**
Characteristics of Infant							
Immediate Assisted ventilation♯	4,182	4,122	3.0	45	1.7	15	1.4
Assisted ventilation 6+ hours##	1,586	1,579	1.2	6*	0.2*	**	**
Neonatal transfer	1,240	1,196	0.9	34	1.3	10*	0.9*
Admission to NICU	8,238	8,198	6.1	29	1.1	11*	1.0*
Surfactant therapy	856	852	0.6	**	**	0	n/a
Antibiotics	7,188	7,169	5.3	17	0.7	**	**
Seizure	72	69	0.05	**	**	0	n/a

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**The estimate has been suppressed because 1) The relative standard error is greater than 50% or can't be determined 2) the observed number of events is very small and not appropriate for publication.

♯ Infant given manual breaths for any duration with bag and mask or bag and endotracheal tube within the first several minutes from birth.

##Infant given mechanical ventilation (breathing assistance) by any method for > 6 hours including conventional, high frequency and/or continuous positive pressure (CPAP).

Outcomes of intended OOH and in-hospital births:

Neonatal mortality among the entire cohort was studied in order to assess outcomes of planned OOH births. Neonatal mortality is defined as a death occurring during the first 28 complete days of age and is an important measure of newborn and maternal health status and prenatal and postnatal medical care. In reviewing neonatal deaths, we found that while the largest number of neonatal deaths occurred among infants delivered in hospitals, the rate of neonatal death was more than double in the intended home birth setting. The higher rate of neonatal mortality for planned OOH births in Utah mirrors a recently published meta-analysis in which women who had planned homebirths had lower rates of obstetric intervention and maternal morbidities but higher rates of neonatal mortality. (2)

We are limited in our ability to further analyze data by birth attendant or rigorously assess outcomes in this analysis by the relatively small numbers in the OOH birth cohort. The Utah live birth certificate did not include details on birth facility and type of attendant at delivery until 2010. Table 4 provides an overview of neonatal deaths by planned place of delivery.

Table 4. Term non-lethal anomalous neonatal deaths by place of birth, Utah residents, 2010-2012

Hospital		Home Intended		Unlicensed Birth Center	
Number	**Rate per 1,000 live births**	**Number**	**Rate per 1,000 live births**	**Number**	**Rate per 1,000 live births**
N=136	1.0 (95% C.I. 0.8, 1.1)	N=6	2.3 (95% C.I. 1.0, 5.1)	**	**

**The rate has been suppressed because the observed number of events is very small and not appropriate for publication.

Perinatal Mortality Review Committee findings:

The Utah Department of Health's (UDOH) Perinatal Mortality Review (PMR) Program is overseen by the Maternal Child Health Bureau and is situated within the Maternal and Infant Health Program. The PMR Program has been in existence since 1995 and reviews all infant deaths (non-anomalous) due to perinatal conditions in Utah through a detailed case-review process. The PMR Committee is comprised of perinatal health care providers from the various health systems operating in Utah. The Committee meets monthly to complete case reviews of infant deaths and to make recommendations based on the reviews. Information gleaned from these reviews is considered for program planning and development by the UDOH.

Between 2009 and 2012 four term out-of-hospital neonatal deaths were reviewed by the Perinatal Mortality Review Committee

- All four deaths were cared for by unlicensed (lay) direct entry midwives
- The PMR Committee deemed that two of the four deaths had a strong chance of being prevented; in one, a good chance that the death could have been prevented and in one, some chance that the death could have been prevented.(scale=none, some, good, strong)
- Recommendations of the PMR Committee on these four deaths included the following:
    - More timely transport of mother and/or infant to hospital when complications present
    - Assure homebirth practitioners and emergency medical system personnel are adequately trained in neonatal resuscitation and have appropriate equipment

Summary of Findings

Limitations: One limitation of this study is that we were not able to identify births of women with intent to deliver at home who ultimately delivered in the hospital. In other words, women who risked out of a planned homebirth and were transported to a hospital for delivery were included in hospital births which could have skewed study findings. In addition, the Utah fetal death certificate currently does not include information on intrapartum fetal deaths that occur in an out-of-hospital setting. Changes are currently underway by the UDOH Office of Vital Records and Statistics to improve the data collection so that in the future we will be able to report these events more appropriately.

Discussion: It is concerning that older women with higher parity are more prevalent among the OOH birth cohort. While it may be these women have a proven track record of low risk births, research indicates that this group of women are actually at higher risk for poorer pregnancy outcomes. (3, 4)

Higher rates of premature rupture of membranes (PROM) >12 hours, precipitous labor (<3 hours) and prolonged labor (>20 hours) were noted among the OOH birth cohort. It is difficult to determine from this analysis whether these practices led to poorer outcomes because of the relatively small numbers included in the OOH birth cohort.

Recommendations: Based on these findings and the perceived limitations of this report, the following are proposed:

1. UDOH Office of Vital Records and Statistics should consider addition of data fields to identify planned OOH births that are later transferred to the hospital (in-process).
2. UDOH Office of Vital Records and Statistics should consider addition of data fields that allow identification of fetal deaths that occur in an OOH birth setting (in-process).
3. A formal Out-of-Hospital Birth Transfer Form should be developed to facilitate respectful inter-professional communication and data collection. This form should be made widely available and should be used in formal training of hospitals, obstetrical providers, certified nurse midwives and other types of midwives. Uniform use of the form for transfers from the OOH to hospital birth setting should be encouraged.
4. Formal protocols should be developed and implemented to ensure safe transfer from the OOH birth setting to the hospital using available best practice guidelines.
5. Development of a survey of patients and providers following transfer from an OOH birth setting to the hospital should be considered in order to ascertain and address limitations and concerns. This should provide an opportunity for debriefing prior to hospital discharge.
6. Introduction of a defined process to regularly review transfers that includes all stakeholders with a shared goal of quality improvement and safety. The Utah Department of Health's (UDOH) Perinatal Mortality Review (PMR) Program may provide such a forum. This process would allow for voluntary case submission (by individual or organization), formal case review, and recommendations for process improvement.
7. Develop and disseminate educational materials regarding OOH birth and safe transfer protocols for obstetric providers of various backgrounds.
8. Public education for reproductive age women that describe the types of pregnancies that are not conducive to OOH delivery.

9. Partnering with midwives to provide neonatal resuscitation training and education about appropriate emergency equipment needed to stabilize and resuscitate newborns.

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APPENDIX:

Birthing Centers

Licensed Birthing Center: A licensed birthing center is stand-alone facility (out of hospital) that is regulated by Utah statue R432-550 under the authority of Utah Code Title 26-21. A facility is considered a birthing center under this rule if it consists of at least two, but not more than five birthing rooms. This statute provides health and safety standards for the organization, physical plant, maintenance and operation of birthing centers. Providers are required to be physicians or Certified Nurse-Midwives and to maintain hospital privileges and a transfer agreement with the closest hospital. Although unsuccessful to this point, repeated and ongoing attempts have been made to create workable regulations and solutions. There are currently no birthing centers licensed to operate in Utah.

Unlicensed Birthing Center:
An unlicensed birthing center, also known as a 'birth suite', is a stand-alone facility (out of hospital) that is exempt from regulation under Utah statute R432-550 because they consist of only one birthing room. There are currently 18 unlicensed birthing centers in the State of Utah.

Health Care Providers of Maternity and Newborn Care

Midwives:

Certified Nurse-Midwife (CNM) is certified by the national American Midwifery Certification Board (AMCB). CNMs have both Registered Nurse (RN) training and credentials, as well as a Master of Science or Doctor of Nursing Practice in nursing with emphasis in nurse midwifery. CNMs have been licensed by the state for many years, and are required by Utah statute to maintain a written plan with a physician for collaboration, consultation and referral when the need arises. Nurse-midwives may be credentialed to assist a surgeon during a Cesarean section. They can also prescribe medications, order diagnostic tests for their patients and provide normal newborn care. CNMs attend births primarily in hospitals but a few attend women in birthing centers and at home.

Direct Entry Midwife (DEM): Direct-entry midwives begin their midwifery education directly, without first completing a nursing degree. There are several different types of direct entry midwives that may legally practice midwifery in Utah.

Certified Midwife (CM), individuals who have or receive an undergraduate degree in a health related field other than nursing and graduate (with Master's degree) from a midwifery education program accredited by American College of Midwifery Education (ACME). Graduates of an ACME accredited midwifery education program take the same national certification examination as CNMs but receive the professional designation of certified midwife. CMs are recognized in a few states, but none are licensed in Utah at the present time.

Certified Professional Midwife (CPM), is a national credential granted by the North American Registry of Midwives (NARM). The certification may be obtained via a variety of routes including attending an accredited direct-entry midwifery school, self-directed education and apprenticeship (referred to as the

Portfolio Evaluation Process), and various equivalency routes. Individuals with a CPM designation may be licensed or unlicensed to practice in Utah. Licensed Direct-Entry Midwives (LDEMs) and unlicensed midwives, commonly referred to as a lay midwife or traditional midwife may both be Certified Professional midwives.

Licensed Direct Entry Midwife (LDEM) Regulation by licensure has been in place in Utah since 2006 (Direct-entry Midwife Act, Utah State Code 58-77). To license, a direct-entry midwife must be a Certified Professional Midwife (CPM), a national credential granted by the North American Registry of Midwives (NARM). Licensed Direct-Entry Midwives are licensed to care for essentially normal pregnant women and their newborns up to six weeks of age. Standards of Practice detail consultation, referral and transfer requirements, (R156-77). LDEMs attend births in homes or in unlicensed birthing centers in Utah.

Unlicensed Midwife (Other Midwife) Direct-entry midwives in Utah may legally practice without a license (Direct-Entry Midwife Act, Utah State Code 58-77501(2)(a)). Unlicensed direct-entry midwives are not required to meet any particular educational standard, are not required to be nationally certified as a CPM, and are not required to meet the consultation and referral requirements specified for Licensed Direct-Entry Midwives. Because there are very few requirements or restrictions for unlicensed DEMs, their qualifications and practice vary widely. These midwives are designated as "Other Midwife" on the Utah birth certificate and referred to by a variety of names, including lay midwives, traditional midwives or simply direct-entry midwives.

MD (Medical Doctor)/DO (Doctor of Osteopathic Medicine)/Naturopath:

Naturopathic Doctor: Licensed to practice in Utah, Naturopaths are required to graduate from an accredited four-year post-graduate residential naturopathic medical school and pass an extensive postdoctoral board examination (NPLEX) in order to receive a license. Naturopathic medicine is a distinct primary health care profession, emphasizing prevention, treatment, and optimal health through the use of therapeutic methods and substances that encourage individuals' inherent self-healing. Naturopathic childbirth means uncomplicated natural childbirth assisted by a naturopathic physician, and includes the use of: natural medicines; and uncomplicated episiotomy. In order to practice obstetrics in Utah, Naturopathic physicians are required to have an obstetric endorsement.

MD/DO: Includes-

Family Medicine physicians who have four years of medical school followed by three years of Family Medicine residency, which includes 14 weeks of focused training in obstetrics. Family physicians provide general health care for all family members, including newborns. They provide prenatal care and attend deliveries in hospitals, and will consult with obstetrician/gynecologists (ob/gyns) for a woman with complications during pregnancy, labor or delivery. Some receive additional surgical training which allows them to perform Cesarean sections; otherwise a family physician can assist the OB physician in a Cesarean.

Obstetricians (ob/gyns) who are (preferably) American Board of Obstetrics and Gynecology board-certified physician, or (preferably) an American Board of Osteopathic Obstetrics and Gynecology certified osteopathic physician (DO). These physicians attend four years of medical school and then four

years of ob/gyns residency, where they specialize in obstetric and gynecologic surgery and procedures and the management of more difficult pregnancies.

Maternal-fetal medicine physicians are subspecialists in the field of obstetrics and gynecology. After the 4 year Ob/Gyn residency, a maternal-fetal medicine physician (also known as a 'perinatologist') completes an additional 3-year fellowship that focuses on the medical and surgical management of complicated pregnancies. Maternal-fetal medicine physicians are board-certified by the American Board of Obstetrics and Gynecology. They care for patients who are referred by midwives and other physicians due to maternal, fetal, or pregnancy-related complications.

Utah Statutes relating to out-of-hospital births:

The Utah Code 58-77-304 pertaining to parents' rights states that "parents have the right to deliver their baby where, when, how, and with whom they choose, regardless of licensure". The code (58-77-501(2)(a)) also notes, it is lawful to practice Direct-entry midwifery in the state without being licensed. Utah Code Title 58-77-102 provides authority for licensed direct entry midwifery practice. Utah Code Title 58-44a provides authority for certified nurse midwifery practice. The Utah Code R432-550 provides authority for Birth Centers in Utah. However, as previously mentioned, since the code defines a Birth Center as having 2-5 rooms, birth suites which by definition have only one room are currently exempt from any regulation or oversight.